CLAIMS

What is claimed is:

1.   A voice call processing system comprising:

a plurality of voice call end points;

a voice over IP (VoIP) gateway for processing voice calls from said plurality of voice call end points;

a voice server communicatively linked to said VoIP gateway;

a real time streaming engine (RTSE) disposed in said voice server;

at least one high priority thread allocatable by said RTSE for streaming audio data to said VoIP gateway; and,

at least one normal priority thread allocatable by said RTSE for transmitting silence data to said VoIP gateway.

2.   The voice call processing system of claim 1, further comprising:

an network source of audio data communicatively linked to said RTSE, said network source providing audio data to said RTSE to be streamed to said VoIP gateway.

3.   The voice call processing system of claim 1, wherein said network source is a text-to-speech (TTS) engine disposed in said voice server.

4.   The voice call processing system of claim 1, wherein said network source is a source of recorded audio disposed in said voice server.

5.   The voice call processing system of claim 1, further comprising:

a dynamic priority adjustment processor for adjusting priority levels for said high priority and normal priority threads.

1   6.   A voice server comprising:

2   a real time streaming engine (RTSE);

3   at least one call channel through which audio and silence data can be

4   exchanged with a voice over IP (VoIP) gateway;

5   at least one network data channel through which audio data can be exchanged

6   with a network source of audio data; and,

7   a dynamic priority adjustment processor for selectively prioritizing threads of

8   execution in which both audio data received in said RTSE over said network data

9   channel and silence data can be transmitted over said call channel to said VoIP

10   gateway.

1   7.   The voice server of claim 6, wherein said network source of audio data is a text-

2   to-speech engine.

1   8.   A voice data streaming method comprising the steps of:

2   establishing a plurality of voice call connections with a voice over IP (VoIP)

3   gateway;

4   receiving audio data from a network source;

5   allocating a high priority thread for streaming said received audio data to a

6   selected one of said plurality of voice call connections through said VoIP gateway; and,

7   allocating a reduced priority thread for transmitting silence data to said VoIP

8   gateway.

1   9.   The method of claim 8, wherein said step of allocating a reduced priority thread

2   comprises the step of allocating a normal priority thread for transmitting silence data to

3   said VoIP gateway.

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1   10.   The method of claim 8, wherein said step of receiving audio data comprises the

2   steps of:

3   receiving audio data from said network source;

4   packetizing said audio data; and,

5   streaming said packetized audio data to selected ones of said plurality of voice

6   call connections through said VoIP gateway.

1   11.   The method of claim 10, wherein said streaming step comprises the step of

2   transmitting said packetized audio data according to the real time protocol (RTP).

1   12.   A voice data streaming method comprising the steps of:

2   establishing a voice call connection with a voice over IP (VoIP) gateway;

3   receiving audio data from a network source;

4   assigning a high priority to a thread of execution in which said received audio

5   data can be streamed to said VoIP gateway; and,

6   reducing said high priority to a normal priority when said received audio data has

7   been completely streamed to said VoIP gateway.

1   13.   The method of claim 12, further comprising the step of streaming silence data in

2   said thread of execution after said high priority has been reduced to said normal priority.

1   14.   The method of claim 13, further comprising the steps of:

2   packetizing said audio data for transmission over a packet-switched network;

3   and,

4   streaming said packetized audio data in said high priority thread of execution

5   according to the real time protocol (RTP).

1   15.   The method of claim 12, wherein said step of receiving audio data from a

2   network source comprises the step of receiving a recorded audio prompt from said

3   network source.

1   16.   The method of claim 12, wherein said step of receiving audio data from a

2   network source comprises the step of receiving synthesized audio from a text-to-speech

3   (TTS) engine.

1   17.   A machine readable storage, having stored thereon a computer program for

2   streaming voice data, said computer program having a plurality of code sections

3   executable by a machine for causing the machine to perform the steps of:

4   establishing a plurality of voice call connections with a voice over IP (VoIP)

5   gateway;

6   receiving audio data from a network source;

7   allocating a high priority thread for streaming said received audio data to a

8   selected one of said plurality of voice call connections through said VoIP gateway; and,

9   allocating a reduced priority thread for transmitting silence data to said VoIP

10   gateway.

1   18.   The machine readable storage of claim 17, wherein said step of allocating a

2   reduced priority thread comprises the step of allocating a normal priority thread for

3   transmitting silence data to said VoIP gateway.

1   19.   The machine readable storage of claim 17, wherein said step of receiving audio

2   data comprises the steps of:

3   receiving audio data from said network source;

4   packetizing said audio data; and,

5   streaming said packetized audio data to selected ones of said plurality of voice

6   call connections through said VoIP gateway.

1   20.   The machine readable storage of claim 19, wherein said streaming step

2   comprises the step of transmitting said packetized audio data according to the real time

3   protocol (RTP).

1   21.   A machine readable storage, having stored thereon a computer program for

2   streaming voice data, said computer program having a plurality of code sections

3   executable by a machine for causing the machine to perform the steps of:

4   establishing a voice call connection with a voice over IP (VoIP) gateway;

5   receiving audio data from a network source;

6   assigning a high priority to a thread of execution in which said received audio

7   data can be streamed to said VoIP gateway; and,

8   reducing said high priority to a normal priority when said received audio data has

9   been completely streamed to said VoIP gateway.

22.   The machine readable storage of claim 21, further comprising the step of

streaming silence data in said thread of execution after said high priority has been

reduced to said normal priority.

23.   The machine readable storage of claim 22, further comprising the steps of:

       packetizing said audio data for transmission over a packet-switched network;

3   and,

4   streaming said packetized audio data in said high priority thread of execution

5   according to the real time protocol (RTP).

1   24.   The machine readable storage of claim 21, wherein said step of receiving audio

2   data from a network source comprises the step of receiving a recorded audio prompt

3   from said network source.

1   25.   The machine readable storage of claim 21, wherein said step of receiving audio

2   data from a network source comprises the step of receiving synthesized audio from a

3   text-to-speech (TTS) engine.